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## AN INDIAN ANT INTRODUCED INTO THE UNITED STATES

By WILLIAM MORTON WHEELER

During the past summer while helping Mr. S. A. Rohwer to arrange the Pergande collection of ants recently acquired by the United States National Museum, I found a series of workers of a common Indian ant, *Triglyphothrix striatidens* Emery, that had been taken August 14, 1913, by Mr. E. R. Barber at Audubon Park, Louisiana. As this interesting insect has only recently spread from its original home in Southern Asia and has not been previously recorded from the United States, it seems advisable to publish a description and simple drawing of it and to trace its history in myrmecological literature.

The genus *Triglyphothrix* Forel is exclusively palæotropical and comprises some twenty described species, about evenly divided between tropical Africa and the Indomalayan region. *T. striatidens* was first described from Burma by Emery in 1889 as a subspecies of *T. obesa* Ern. André and was cited for some time under this name by both Emery and Forel. Later it was given specific rank. Bingham, who found it common and widely distributed in India, Ceylon and Burma, claimed that it "differs constantly both in Indian and Burmese specimens" from *obesa*, but the differences are not very striking and seem not to be constant.

The contention that *striatidens* originated in Southern Asia is, of course, based on its abundance in that region. Its tendency to spread into other tropical and subtropical portions of the Old World was first noticed by Emery, who in 1891 recorded it from Tunis and stated that Ern. André had recently received it from Sierra Leone. In 1901 Forel recorded it from the Bismarck Archipelago and in 1902 from Australia, where it was taken by Turner near Mackay, Queensland. Forel described this form as a distinct variety, *australis*, although it differs only slightly if at all from the typical Indian form. That it is still very rare or local in Australia is indicated by my inability to find it in Queensland or in the large collections of ants sent to me from this and other portions of the commonwealth. In 1909 I recorded the occurrence of *T. striatidens* in Formosa, where it was taken by Mr. Hans Sauter. In 1912 Stitz described from the Island of Ceram as *T. ceramensis*, which, to judge from the description, is hardly more than a variety of *striatidens*. In 1913 Forel cited *striatidens* from Sumatra, where it was taken by von Buttel-Reepen. I find in my collection a single typical worker taken at Kuching, Borneo, by Mr. J. Hewitt and a dealated female taken by Mr. D. T. Fullaway on the Island of Guam.

When common tropical ants begin to spread beyond their native environments, they are very apt to be introduced with plants into the hot-houses of temperate regions. As early as 1906 Bingham found *T. striatidens* in the propagating pits of the Kew Botanic Garden, in England, and in 1905 and 1908 Dornithorpe recorded it as common in the Palm House of the same institution.

Forel was the first to notice that *striatidens* had been transported and had secured a foothold in the New World. As early as 1900 he received specimens of a small variety which he called *levidens*, that had arrived at Hamburg from Mexico in a living condition with orchids, and more recently (1912) he announced the occurrence of the typical *striatidens* in Barbados. In 1902 and 1911 he stated that this ant was actively "becoming cosmopolitan." Mr. Barber's specimens show that it has now made its appearance in the Southern States.

It may, therefore, be expected to take up its residence at no remote date in the hot-houses of the northern states. In all probability it has already established itself in numerous localities in tropical America, from which orchids and other plants are being constantly imported.

The worker *T. striatidens* (Fig. 39a and b) is very easily distinguished from that of any of our American ants by the shape of the head and thorax and the peculiar structure of the soft, dense, erect hairs covering the body. It measures only 2.5 mm. and is orange-brown or dark brown with the first gastric segment blackish and the mandibles, antennae and legs brownish-yellow. The mandibles are striated, the head, thorax, petiole and postpetiole subopaque, punctate and reticulate-rugose, the rugae on the upper surface of the head being longitudinal. The gaster is smooth and shining. The head is subrectangular,

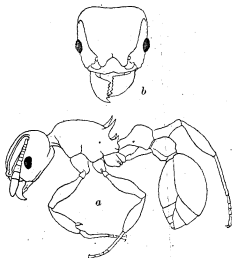


Fig. 39. *Trigllyphothrix striatidens* Emery, a worker in profile; b head from above.

with the frontal carinae continued backward nearly to the posterior corners and forming the inner borders of broad and moderately deep scrobes into which the folded antennae fit above the eyes. The thorax is short, without promesonotal and mesoepinotal sutures, with the episternal angles projecting upward as spines and the epinotal spines rather long, erect, pointed and very slightly recurved. The nodes of the pedicel are somewhat flattened above, the petiole is anteriorly pedunculate, its node a little longer than broad, the postpetiolar node is rounded, about as broad as long, shorter than the petiolar node. The body and legs are covered with soft, dense, erect hairs, many of which are trifid from their insertions and therefore suggested the generic name. The female is a little larger than the

worker, but very similar, apart from the usual differences in the structure of the thorax, presence of ocelli and wings. The male is still unknown.

The following literature contains all or nearly all the important references to *T. striatidens*:

1903. BINGHAM, C. H. The Fauna of British India including Ceylon and Burma Hymenoptera II, 1903, p. 173. (Description of *T. striatidens* and other Indian species of the genus.)
1906. BINGHAM, C. H. The Wild Fauna and Flora of the Royal Botanic Garden, Kew. Bull. Misc. Inf. Roy. Bot. Gard. Kew. Add. Ser. 5, 1906, p. 28. (*T. striatidens* in propagating pits at Kew.)
1908. DONISTHORPE, HORACE. Additions to the Wild Fauna and Flora of the Royal Botanic Gardens, Kew 7. Bull. Misc. Inf. Roy. Bot. Gard. Kew, 1908, p. 122. (*T. striatidens* in fern and palm houses at Kew.)
1915. DONISTHORPE, HORACE. British Ants, Their Life-History and Classification. Plymouth, Wm. Brendon & Co., 1915, p. 341. (*T. striatidens* common in Kew Gardens.)
1889. EMERY, CARLO. Formiche di Birmania e del Tenasserim raccolte da Leonardo Fea (1885-87) Ann. Mus. Civ. Stor. Nat. Genova (2) 7, 1889, p. 501. (Original description of *T. striatidens*.)
1891. EMERY, CARLO. Revision Critique des Fourmis de la Tunisie. In Explor. Sc. Tunisie 1891, p. 4. (*T. striatidens* recorded from Tunis and Sierra Leone.)
1900. FOREL, A. Fourmis Importees. Bull. Soc. Ent. Suisse 10, 1900, p. 284. (*T. striatidens* var. *levidens* imported into Hamburg from Mexico with orchids.)
1901. FOREL, A. Formiciden aus dem Bismarck-Archipel. Mitth. Zool. Mus. Berlin, 2, 1901, p. 10. (*T. striatidens* in Bismarck Archipelago.)
1902. FOREL, A. Fourmis Nouvelles d'Australie. Rev. Suisse Zool. 10, 1902, p. 449. (*T. striatidens* var. *australis* described from Queensland.)
1902. FOREL, A. Les Formicides de l'Empire des Indes et de Ceylan. Pt. X. Journ. Bombay Nat. Hist. Soc. 14, 1902, p. 704. (*T. striatidens* recorded from Burma, Ceylon and "tout le continent de l'Inde. Cette espèce tend a devenir cosmopolite.")
1902. FOREL, A. Myrmicinae nouveaux de l'Inde et de Ceylan. Rev. Suisse Zool. 10, 1902, p. 239. (*T. striatidens* subsp. *orissana* described from Orissa.)
1911. FOREL, A. Aperçu sur la distribution géographique et la phylogénie des Fourmis. 1<sup>o</sup> Congr. Internat. d'Ent. Bruxelles, Aug. 1910, 2, 1911, p. 83. (Cosmopolitan distribution of *T. striatidens* mentioned.)
1912. FOREL, A. Formicides Neotropiques. Part IV. Mem. Soc. Ent. Belg. 20, 1912, p. 1. (*T. striatidens* in Barbados.)
1913. FOREL, A. Ameisen aus Sumatra, Java, Malacca und Ceylan, Gesammelt von Herrn Prof. Dr. von Buttel-Reepen in den Jahren 1911-1912. Zool. Jahrb. Abth. f. Syst. 36, 1913, p. 82. (*T. striatidens* in Sumatra.)
1909. WHEELER, W. M. Ants of Formosa and the Philippines. Bull. Amer. Mus. Nat. Hist. 26, 1909, p. 336. (*T. striatidens* in Formosa.)